

इंटरनेट

मानक

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Jawaharlal Nehru

“Step Out From the Old to the New”

IS 9165-2 (1992): Surgical instruments - Needles, suture, Part 2: Eyed needles - Sizes, shapes and dimensions [MHD 1: Surgical Instruments]



“ज्ञान से एक नये भारत का निर्माण”

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“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

शल्यक उपकरण — सीवन सुइयाँ

भाग 2 आँख वाली सुइयाँ — आकार, आकृति एवं आयाम

Indian Standard

**SURGICAL INSTRUMENTS — NEEDLES,
SUTURE**

PART 2 EYED NEEDLES — SIZES, SHAPES AND DIMENSIONS

UDC 615.472.2 : 616.089.84-7

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**BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002**

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Surgical Instruments Sectional Committee had been approved by the Medical Equipment and Hospital Planning Division Council.

The Indian Standard for suture needles for general surgical purposes is being issued in different parts. While Part 1 of this standard covers the general requirements and tests applicable to all types of suture needles, this part (Part 2) covers the sizes, shapes and dimensions of eyed suture needles. These aspects were earlier covered in IS 10104 (Part 1) : 1981 'Needle, suture : Part 1 Curved 1/4, 3/8, 1/2 and 5/8 circle or straight'. As a result of the above reorientation, IS 10104 (Part 1) : 1981 stands withdrawn.

In addition to the above, this standard incorporates the following changes:

- a) Certain essential dimensions of the eye of the suture needle have been modified and an alternate design of spring eye (having a single eye) has been incorporated.
- b) Only the sizes, shapes and dimensions of eyed suture needles have been covered, as the specification aspects of these needles are covered in IS 9165 (Part 1) : 1992 'Surgical instruments — Needles, suture: Part 1 Specification (*first revision*)', which would serve as a horizontal standard for suture needles. Accordingly, this standard takes the form of a vertical standard and is intended to be used in conjunction with IS 9165 (Part 1) : 1992.

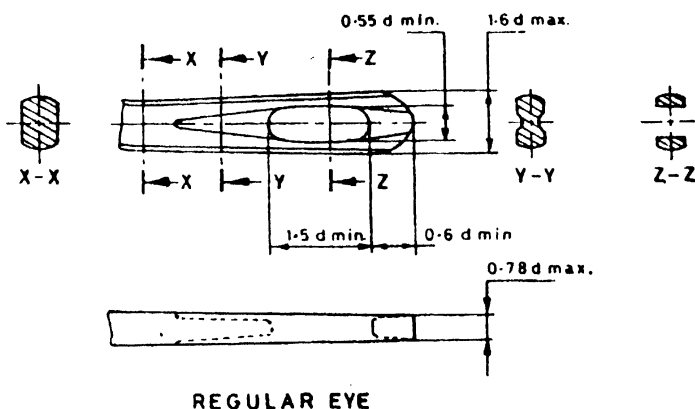
The eyeless and other special purpose suture needles are intended to be covered in the subsequent parts of this standard.

For the purpose of deciding whether a particular requirement of this standard has been complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

**AMENDMENT NO. 1 MAY 2005
TO
IS 9165 (PART 2) : 1992 SURGICAL INSTRUMENTS —
NEEDLES, SUTURE**

PART 2 EYE NEEDLES — SIZES, SHAPES AND DIMENSIONS

(Page 2, Fig. 2) — Substitute the following part depicting 'Regular Eye' of the figure for the existing:



(MGP 40)

Reprography Unit, BIS, New Delhi, India

Indian Standard

SURGICAL INSTRUMENTS — NEEDLES, SUTURE

PART 2 EYED NEEDLES — SIZES, SHAPES AND DIMENSIONS

1 SCOPE

1.1 This standard specifies the sizes, shapes and dimensions of eyed suture needles.

2 REFERENCES

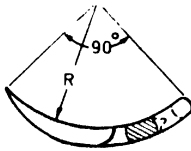
2.1 The Indian Standard IS 9165 (Part 1) : 1992 'Surgical instruments — Needles, suture : Part 1 Specification (*first revision*)' is a necessary adjunct to this standard.

3 SIZES, SHAPES AND DIMENSIONS

3.1 The different shapes of the eyed suture

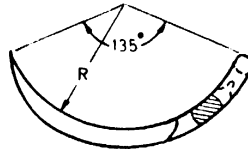
needles shall be as shown in Fig. 1. The preferred length of needle, its diameter and their combination shall be in accordance with Table 1. However, as agreed to between the manufacturer and the purchaser, the other combinations of length and diameter may also be permitted.

3.2 Three types of eyes of the suture needle, namely regular eye, french spring eye and an alternate spring eye having a single eye along with their dimensions are shown in Fig. 2. The purchaser shall use his option to order particular shape of the eye.



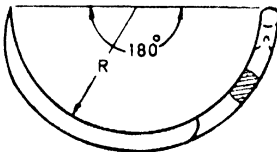
$$R = \frac{2l}{\pi}$$

1A 1/4 CIRCLE



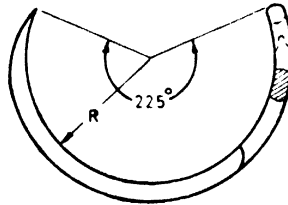
$$R = \frac{4l}{3\pi}$$

1B 3/8 CIRCLE



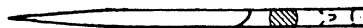
$$R = \frac{l}{\pi}$$

1C 1/2 CIRCLE



$$R = \frac{4l}{5\pi}$$

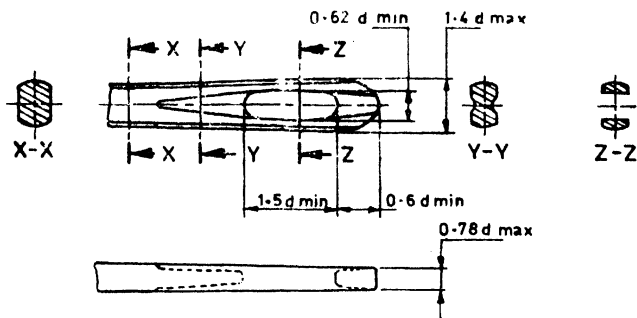
1D 5/8 CIRCLE



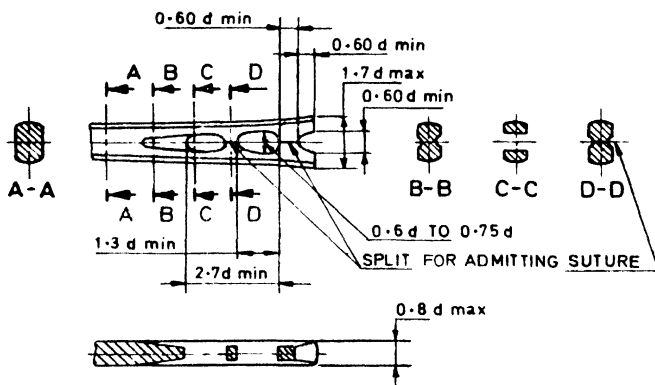
1E STRAIGHT

R = Radius of curvature
 l = Length of the Needle

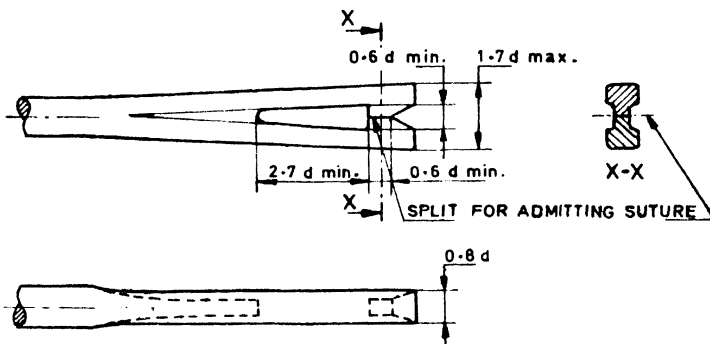
FIG. 1 SUTURE NEEDLES, CURVED AND STRAIGHT



REGULAR EYE



FRENCH SPRING EYE



Alternate design of spring eye (with a single eye)

d = NOMINAL DIAMETER OF THE NEEDLE WIRE

All dimensions in millimetres.

FIG. 2 EYES FOR SUTURE NEEDLES

Table 1 Dimensions of Eyed Suture Needles
(Clause 3.1)

All dimensions in millimetres.

d	3	4	5	6	7	8	9	10	12	13	15	16	17	18	19	20	21	22	24	25	27	29	31	32	33	35	38	40	41	43	45	46	50	51	52	55	60	65	70	75	80	90	100	115	130	140		
0-14	x	x	x																																													
0-20				x	x	x	x	x	x																																							
0-25			x	x	x	x	x	x	x																																							
0-31						x	x	x	x	x																																						
0-40									x	x	x	x	x	x	x	x	x																															
0-50										x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
0-63											x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
0-71																x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
0-80																				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
0-90																					x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
1-00																						x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
1-25																							x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
1-40																								x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
1-60																									x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
1-80																										x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2-00																											x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2-24																												x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2-50																													x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

d —Needle wire diameter

L —Length of the needle

3.3 Seven types of needle points are shown in Fig 3. The purchaser shall use his option to order any or all types of needle points required by him. The length of the flattened portion of the needle shall be minimum one-third of the total length (L) of the needle from the eye end.

3.4 Deviations as given below shall be permitted

on all dimensions:

Dimensions	Deviation
Up to 1.0 mm	\pm 10 percent
Above 1.0 mm up to 2.0 mm	\pm 0.10 mm
Above 2.0 mm up to 5.0 mm	\pm 0.15 mm
Above 5.0 mm up to 10.0 mm	\pm 0.20 mm
Above 10.0 mm up to 20.0 mm	\pm 0.50 mm
Above 20.0 mm up to 50.0 mm	\pm 1.00 mm
Above 50 mm	\pm 3.00 mm

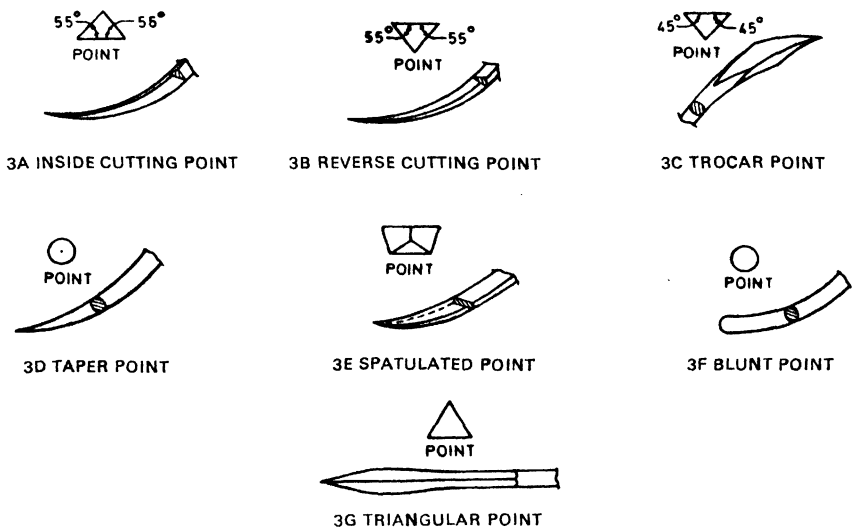


FIG. 3 TYPES OF NEEDLE POINTS

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